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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,053	09/29/2003	Kurt Ulmer	200210246-02	2572

7590 11/25/2005

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EXAMINER

LEWIS, BEN

ART UNIT PAPER NUMBER

1745

DATE MAILED: 11/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/674,053

Applicant(s)

ULMER ET AL.

Examiner

Ben Lewis

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-27 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-7, 24 and 25 drawn to a fuel cell system, classified in class 429, subclass 23.
 - II. Claims 8-15 and 16-23, drawn to a method classified in class 429, subclass 13.
 - III. Claims 26 and 27, drawn to a computer-readable media, classified in class D14, subclass 300.
2. Inventions I and III are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because a fuel cell does not require the particulars of a computer-readable media to show novelty and unobviousness. The subcombination has separate utility such as a computer- readable media having

Art Unit: 1745

instructions capable of instructing a processor-based controller to supply an excess amount of fuel to an automobile engine.

3. Inventions II and I are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case as admitted in the subject matter of the present claims the fuel cell systems can be operated using two distinct operating systems as recited in claims 8-15 and 16-23 respectively.

4. If invention II is elected, an election of species is required. This application contains claims directed to the following patentably distinct species of the claimed invention.

II-1, Claims 8-15, a method comprising:

- a) Supplying an excess amount of fuel to a multiple fuel cell system
- b) Switching at least some of the fuel cells from a parallel electrical arrangement to a series electrical arrangement
- c) producing heat from at least some of the excess amount of fuel

II-2 Claim 16-23, drawn to a method comprising:

Art Unit: 1745

- a) Supplying a substantially constant amount of fuel to a multiple fuel cell system
- b) switching at least some of the fuel cells from a series electrical arrangement to a parallel electrical arrangement
- d) increasing EMF efficiency
- e) reducing fuel efficiency

5. If invention I is elected, an election of species is required. This application contains claims directed to the following patentably distinct species of the claimed invention.

I-1, Claims 1-7, drawn to a system comprising a first and second fuel cell capable of providing an electrical output. A switch circuit that includes one or more switches for arranging the electrical output of the first fuel cell and the electrical output of the second fuel cell in parallel or series to thereby adjust electrical output efficiency to heat production.

I-2 Claim 24, drawn to a means for supplying an excess amount of fuel to a multiple fuel cell system. Means for switching at least some of the fuel cells from a parallel electrical arrangement to a series electrical arrangement and means for producing heat from at least some of the excess amount of fuel.

I-3 Claim 25, drawn to a means for supplying a constant amount of fuel to a multiple fuel cell system. Means for switching at least some of the fuel cells from a series electrical arrangement to a parallel electrical arrangement and means for increasing EMF efficiency and means for reducing efficiency

6. Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, none of the claims are generic.

7. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

8. Applicant is advised that a reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143)

9. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Art Unit: 1745

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ben Lewis whose telephone number is 571-272-6481.

The examiner can normally be reached on 8:30am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ben Lewis


PATRICK JOSEPH RYAN
SUPERVISORY PATENT EXAMINER

Patent Examiner

Art Unit 1745